

Appeal from a decision of the New Mexico State Office, Bureau of Land Management, finding that certain of the gas vented at wells operated by Mallon Oil Company had been avoidably lost. NM-40645, NM-40646, and NMA-113.

Affirmed.

1. Administrative Authority: Laches--Estoppel--Laches

The authority of the United States to enforce a public right or protect a public interest is not vitiated or lost by laches, neglect of duty, failure to act, or delays in the performance of duties.

2. Oil and Gas Leases: Generally--Oil and Gas Leases: Royalties

The Department has the authority to issue NTL's for Federal leases. NTL-4A governs compensation for oil and gas which is lost by an operator. Unless specifically allowed by the provisions of NTL-4A, venting or flaring of oil well gas must be approved in writing by an authorized officer. Unless it can be shown that it was uneconomic to recover the gas at the time it was vented or flared, gas which is vented or flared without prior authorization, approval, ratification, or acceptance is deemed to be avoidably lost. When produced gas is avoidably lost, the compensation due the United States is computed on the basis of the value of the gas avoidably lost, or the allocated portion thereof attributable to the lease.

3. Oil and Gas Leases: Generally--Oil and Gas Leases: Burden of Proof--Oil and Gas Leases: Royalties--Rules of Practice: Appeals: Burden of Proof

The Department is entitled to rely on the reasoned analysis of its technical experts in matters within the realm of their expertise. If BLM supports a decision regarding the volume of gas avoidably lost by an operator with sufficient evidence to demonstrate a rational

basis for that decision and that the decision was made in a careful and systematic manner, using the advice of such experts, the decision will not be rejected without a showing of error. The party challenging the decision has the burden of showing by a preponderance of the evidence that the determination is erroneous.

APPEARANCES: Tommy Roberts, Esq., Farmington, New Mexico, for appellant; Margaret C. Miller, Esq., Office of the Field Solicitor, Santa Fe, New Mexico, for the Bureau of Land Management.

#### OPINION BY ADMINISTRATIVE JUDGE MULLEN

Mallon Oil Company (Mallon) has appealed from a decision of the New Mexico State Office, Bureau of Land Management (BLM), dated March 31, 1987, upholding an assessment for unauthorized venting of gas, and modifying an earlier determination of the volume of gas avoidably lost. The State Office decision followed its technical and procedural review (TPR) of a Farmington Resource Area decision.

By letter decision dated July 31, 1986, the Area Manager, Farmington Resource Area, made a final determination that casinghead gas had been avoidably lost at Mallon's No. 2-16 Ribeyowids (NM-40645), No. 2-1 Fisher Federal (NM-40646), and No. 1-8 Howard (NMA-113) wells because it had been vented without prior authorization. The decision stated in part:

Our determination of the volumes of casinghead gas avoidably lost without measurement utilizes the criteria of NTL-4A-III and V. This includes the BLM witnessed gas-oil ratio test taken through the sales meters that were installed on each location. Since this was at the very end of the venting period it is measurement of the last throughput of this period; the set of gas-oil ratio tests run by Mallon Oil Company and provided at our request. Adjustments have been made for specific gravity, temperature, altitude and pressure base. The integration values used were provided by Mallon Oil Company and accepted as reasonable; daily lease production rates were taken from the pumper's records and the Gas Measurement Audit Service monthly summaries; historic production trends of other wells producing from the same formation and pool (where available) were compared to the subsequent production data of the subject wells; the duration of the period of time that gas was lost without authorization begins 30 days after gas was first produced, extending until shut-in orders were issued. This issue has been clarified in depth in our July 8, 1986, letter.

We place primary importance upon the tests taken during the venting period. These tests are the only record of production during this period, and are the only representation of the actual physical conditions without alteration. Since then, the gas production has been tied in for sales making subsequent production data available. Upon this data you have maintained the position

that the first month's production data (gas-oil ratio) should be utilized as the basis for calculating the volumes of gas lost without measurement.

Our District Office has directed us to base our calculations on the tests run during the venting period. Based on the available data, in our view this is the best representation to calculate the volumes of casinghead gas lost without approval.

We have also given careful consideration to the matter of NMOCD [New Mexico Oil Conservation Division] Order No. R-8124, the long term reservoir study in which Mallon Oil Company participated. This order grants temporary exception to the NMOCD No Flare Rule No. 306 for gas production from the No. 1-8 Howard during the reservoir study. This case is complicated by the timing of NMOCD Order R-8124, and the mixed jurisdiction of the No. 1-8 Howard, a fee well, which was within Communitization Agreement NMA-113 (50 percent Federal) during the venting period.

On leases where mixed jurisdiction exists between the BLM Farmington and NMOCD, Aztec Offices, the standing policy is that both sides concur before approval to vent is granted. Mallon Oil Company never has submitted a request, to our knowledge, to the NMOCD. As for the NMOCD Order No. R-8124, this office had no knowledge of it until long after the fact, which was complicated by the retroactive nature of the order.

Although no concurrence or approval was ever obtained by this office, we recognize that the intent of the reservoir study initiated by Benson-Montin-Greer, Inc., was in the interest of conservation of oil and gas resources. We thereby accept and ratify the above NMOCD order, and will not seek compensation for the Federal portion of gas avoidably lost from the No. 1-8 Howard, Communitization Agreement NMA-113 during the month of November 1985.

On the basis of the above we will hereby advise the Minerals Management Service by copy of this letter that 13,920 MCF from the No. 2-16 Ribeyowids, 18,348 MCF from the 2-1 Fisher Federal, and 7,082 MCF from the No. 1-8 Howard (for a total of 39,350 MCF) of gas, was avoidably lost by venting without prior authorization or approval being received by Mallon Oil Company.

(July 31, 1986, Decision at 1-2).

After receiving the Farmington Resource Area decision, by letter dated August 15, 1986, Mallon formally requested a TPR pursuant to 43 CFR 3165.3. As a basis for its request, Mallon stated its opinion that the July 31, 1986, decision improperly relied upon the results of gas-oil ratio (GOR) tests conducted by Mallon during the venting period. Mallon stated that those GOR tests were conducted using an uncalibrated atmospheric pressure tester (APT) for the purpose of classifying the wells as an oil or gas producer. Mallon noted that while this procedure is acceptable in the industry

for that purpose, the results obtained using an APT are not sufficiently accurate to determine the volumes of gas vented during a given period. Mallon claimed that subsequent tests conducted in January 1986 provided a more reliable basis for determining actual volumes of gas produced during the venting periods in question. Mallon explained that the January 1986 on-line tests utilized calibrated meters, and that it is the standard practice to use calibrated meters to measure gas for sales purposes, because calibrated meters measure actual differential pressure and temperature eliminating the need to make the assumptions regarding pressure base, temperature, and specific gravity.

Mallon disputed the Area Manager's application of NTL-4A, claiming that it was improperly charged for "unavoidably lost" gas as that term is defined in NTL-4A. Mallon also asserted that gas vented during an approved reservoir study undertaken pursuant to state rules and regulations should not be deemed avoidably lost; that a 30 mcf per day exception is routinely granted; and that 30 mcf per day should be deemed unavoidably lost pursuant to a liberal application of the state rules and regulations. 1/

In its March 31, 1987, decision, the New Mexico State Office, BLM, modified the Area Manager's decision as to the volume of avoidably lost gas. Agreeing with appellant's contention that the 30-day evaluation period started on the date the well was placed in producing status, rather than on the date of first release of the gas, the State Office concluded that the 30-day evaluation period began on July 23, 1985, for the Fisher Federal No. 2-1 well, and began in September 1985 for the Howard No. 1-8 well. As a result, the State Office adjusted the Area Manager's calculation of the volume of gas avoidably lost from the Fisher Federal No. 2-1 and the Howard No. 1-8 by deducting the volume of gas vented from those wells during the 30-day evaluation period permitted by NTL-4A.

The State Office decision responded to the assertions raised by appellant in its request for a TPR and affirmed the Area Manager's decision in all other respects. With regard to the GOR tests the BLM decision stated:

The lack of calibration does not necessarily mean that inaccurate measurements were obtained. If the average GOR's obtained by the APT for the No. 2-1 Fisher Federal are compared to the GOR obtained during the BLM-witnessed test through the sales meter, the difference is 3 percent (686 versus 665). The difference for the Howard No. 1-8 is 10 percent (1080 versus 978). For the Ribeyowids No. 2-16, the difference is 37 percent (621 versus 452); however two of the test GOR's for this well were taken at relatively high flow rates compared to that of the sales meter rate (290 bbls and 298 bbls versus 157 bbls). When comparing the

1/ We find nothing in the case file which would indicate that Mallon asserted that it would have been uneconomic to capture the gas at any time during the TPR proceeding or in the pleadings it filed with this Board. Cf. Ladd Petroleum Corp., 107 IBLA 5 (1989), in which the primary contention of appellant was that it was uneconomic to capture the flared gas.

APT GOR obtained at 157 bbls versus the sales meter GOR at the same rate, the difference is only 4 percent (433 versus 452).

Mallon also contends that the GOR tends to increase over a period of time. However, from the Turner Solution Gas Drive Analysis conducted by Jerry R. Bergeson and Associates, the producing GOR for the Gavilan Marcos Pool for the past two years has ranged between 1100 and 1350. Of the eight tests conducted between May 15, 1984, and April 10, 1986, four of the GOR's obtained were 1100. Therefore, for the last two years, the pool GOR has been relatively constant. The above data supports the GOR's obtained by the APT's as being valid.

(BLM Decision at 1-2).

The State Office rejected Mallon's contention that it should find the gas vented at the Fisher Federal No. 2-1 and Ribeyowids No. 2-16 wells during November and December 1985 to be unavoidably lost because of Mallon's participation in the reservoir study conducted pursuant to NMOCD Order R-8124. This Order called for venting gas at appellant's Howard No. 1-8 well. Order R-8124 makes mention of the fact that Mallon had proposed venting gas from the Ribeyowids No. 1-16 well in November and December 1985, in order to condition the reservoir for the tests, but also provides that such testing was allowable upon proper showing and approval of the District Director. There is nothing in the record to show that the approval had been obtained. The Fisher Federal No. 2-1 well was not named in NMOCD Order R-8124.

In response to Mallon's argument that the casinghead gas was vented pursuant to the authority of state rules and regulations the BLM decision stated:

The approval of the State agency to vent or flare gas does not release an operator or lessee from the obligation to obtain approval from the BLM Authorized Officer when Federal or Indian minerals are involved. Furthermore, NTL-4A, 43 CFR 3162.7-1(d) and 30 CFR 206.100 require the Authorized Officer to approve the venting or flaring of gas.

(BLM Decision at 3).

The State Office determined the Federal portion of the gas avoidably lost from the various wells to be: Ribeyowids No. 2-16 well, 13,898 mcf; Fisher Federal No. 2-1, 12,560 mcf; and Howard No. 1-8, 2,258 mcf. The total was determined to be 28,716 mcf. 2/ An appeal of this decision was lodged by Mallon.

On appeal Mallon first contends that the State Office violated the provisions of 43 CFR 3165.3 by taking longer than 10 working days to respond to its TPR request. Appellant states that by doing so BLM relinquished its

2/ See Appendix A.

jurisdiction, and the March 31, 1987, decision is therefore null and void. In support of this contention, appellant argues that if the time limitations set forth in 43 CFR 3165.3 are binding on a lessee or operator, it follows that the time limitation is applicable to and equally binding upon BLM.

Appellant renews the assertions that BLM's reliance on the GOR tests it conducted during the venting period is misplaced and that the tests conducted in January 1986 provide a more reliable basis for calculating the actual volumes of gas vented. Appellant contends that the actual GOR tends to increase over a period of time after a well is in producing status, and therefore the GOR should have been lower during the venting periods than the more reliable GOR's it had obtained during the subsequent testing conducted in January 1986. Appellant argues that if the actual engineering data, theories, and principles applied by it are legitimate, then it follows that the significantly higher GOR measurements obtained from uncalibrated meters during the venting period are less accurate than those obtained in January 1986.

Appellant also argues that the State Office decision fails to recognize that certain operating decisions with respect to the production of gas from the subject wells had been made in the interest of conservation and for the purpose of preventing waste. Appellant contends that its operating decision to vent gas from the Fisher Federal No. 2-1 and Ribeyowids No. 2-16 wells in November and December 1985 was made to allow a "shut-in" of sufficient duration to avoid an adverse effect on the wells during the reservoir study. Mallon contends it should not be charged for venting from those wells because it is inconsistent for BLM to recognize the benefits of the reservoir study and then charge appellant for its action in furtherance of the study.

[1] We reject appellant's argument that BLM lost jurisdictional authority by failing to provide a timely TPR decision, pursuant to 43 CFR 3165.3. Appellant does not show that it has suffered any harm as a result of the BLM delay, nor does the applicable regulation specify any consequences in the event of delay. Additionally, the authority of the United States to enforce a public right or to protect a public interest is not vitiated or lost by laches, neglect of duty, failure to act, or delays in the performance of duties. REO Broadcast Management Co., 98 IBLA 139 (1987); Alyson A. Allison, 72 IBLA 333 (1983).

[2] The issuance of NTL's is authorized at 43 CFR 3161.2. The regulation at 43 CFR 3162.1(a) requires compliance "with applicable laws and regulations; with the lease terms, Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the authorized officer." (Emphasis added.)

NTL-4A is specifically directed to the calculation of royalties or compensation for oil and gas lost by an operator. <sup>3/</sup> As noted in Lomax Exploration Co., 105 IBLA 1 (1988), the regulations clearly grant the authority to issue NTL's, and the language of NTL-4A pertaining to avoidably lost gas

<sup>3/</sup> NTL-4A was published at 44 FR 76600 (Dec. 27, 1979).

is clear and unambiguous. 4/ Economically recoverable oil well gas may not be vented or flared unless that activity is approved in writing by an authorized officer. 5/ Venting or flaring of such gas without prior authorization, approval, ratification, or acceptance is deemed to be avoidably lost. When produced gas is avoidably lost, the compensation due the United States is computed on the basis of the value of the gas avoidably lost, or the allocated portion thereof attributable to the lease. 6/

Appellant does not contend that it would not have been economic to capture the gas during the critical period, or that it had obtained written permission from an authorized officer to vent casinghead gas from the Ribeyowids No. 2-16 or the Fisher Federal No. 2-1 wells. Nor does appellant contend that it had permission to vent gas from the Howard No. 1-8 well outside of that period permitted by NMOCD Order R-8124, which was subsequently ratified by BLM. We thus find no reason to hold that the gas vented during the times stated in the State Office decision was unavoidably lost.

Having determined that the gas was avoidably lost, we now address Mallon's contention that BLM did not properly calculate the volume of the avoidably lost gas.

Under the heading "V. Reporting and Measurement Responsibilities," NTL-4A provides:

The volume of oil or gas produced, whether sold, avoidably or unavoidably lost, vented or flared, or used for beneficial purposes (including gas that is reinjected) must be reported on Form 9-329, Monthly Report of Operation, in accordance with the requirement of this Notice and the applicable provisions of NTL-1 and NTL-1A. The volume and value of all oil and gas which is sold, vented or flared without the authorization, approval, ratification, or acceptance of the Supervisor, or which is otherwise determined by the Supervisor to be avoidably lost must be reported on Form 9-361, Monthly Report of Sales and Royalties. Payments submitted in this respect must be accompanied by a Form 9-614-A, Rental and Royalty Remittance Advice.

In determining the volumes of oil and gas to be reported in accordance with the first and second paragraphs of this Section V, lessees and operators shall adhere to the following:

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4/ The Lomax decision was modified by Ladd Petroleum, supra.

5/ The term "authorized officer" is now used. This term has the same general meaning as the term "supervisor" in NTL-4A.

6/ The Department's present policy regarding the amount to be assessed has been modified to provide for the assessment in the amount of the royalty value of the gas avoidably lost after Oct. 21, 1984. See Instruction Memorandum 87-652 at 6 (Aug. 17, 1987).

2. When the amount of oil and gas avoidably or unavoidably lost, vented or flared, or used for beneficial purposes occurs without measurement, the volume of oil or gas shall be determined utilizing the following criteria, as applicable:

- a. Last measured throughput of the production facility.
- b. Duration of the period of time in which no measurement was made.
- c. Daily lease production rates.
- d. Historic production data.
- e. Well production rates and gas-oil ratio tests.
- f. Productive capability of other wells in the area completed in the same formation.
- g. Subsequent measurement or testing, as required by the Supervisor.
- h. Such other methods as may be approved by the Supervisor.

The Supervisor may require the installation of additional measurement equipment whenever it is determined that the present methods are inadequate to meet the purpose of this Notice.

44 FR 76600, 76601 (Dec. 27, 1979).

Appellant argues that the GOR's of wells in the area tend to increase as production continues. Appellant asserts that if the engineering data and generally recognized and accepted engineering theories and principles are applied to the facts in this case, the GOR's utilized by BLM are not accurate, because those ratios are significantly higher than the ratios determined by Mallon's January 1986 tests. Appellant further contends:

[T]he Bureau of Land Management apparently failed to analyze the data submitted by MOC on a well by well basis. The data submitted indicates that the average gas-oil ratio for the Gavilan Mancos Oil Pool in December 1986 was 2,664. Only two (2) wells had gas-oil ratios on the pool average. Twenty-six (26) wells in the pool had lower gas-oil ratios. During the period of time from January 1986 through May 1986 -- that period of time when first sales measurements were obtained from the three (3) wells which are the subject of this appeal -- the gas-oil ratios obtained for those three (3) wells were substantially lower than the average pool gas-oil ratio. This data supports the position of [appellant] that actual gas-oil ratios during the venting periods in question were lower than the gas-oil ratios obtained by [appellant] from testing in January, 1986.

(Statement of Reasons at 12).



The State Office decision was based upon an undated memorandum prepared by the Farmington Area Office in response to objections raised by Mallon Oil as a basis for the TPR request. In response to the assertion that the January 1986 data represent the most accurate information upon which to calculate the amount of casinghead gas lost during the venting period, the memorandum stated:

After careful consideration, we feel that the GOR tests taken during the venting period are our best representation.

First, these reflect the actual conditions. The first month of sales is gas produced against a line pressure as opposed to atmospheric. This could effect downhole characteristics, and at least short term GOR.

Second, all the tests taken are well above the first month's average. Even due to daily fluctuations, it seems highly improbable that they would all be high without exception.

Third, not all data agree with the theory. The nearest well to the 1-8 Howard, the Benson-Montin-Greer No. 29 Canada Ojito recorded an initial GOR decline. From speaking with Mr. Greer he believes "free gas" exists in the reservoir, which is dissipated early in the production. (Sec. D-4, pg. 2)

Charts of GOR trends (from 3160-6s) indicate that the I.P. is high, the first month GOR is low, pumping wells create erratic GOR. That GOR will stabilize somewhat after the first few months, and that there is always an exception. [sic] (Sec. D-7) One exception is that some wells will have a declining GOR at some time. We find the results too inconclusive to support the first month's GOR as a viable model.

Fourth, we believe there are serious shortcomings in the completeness of gas measurement for January and the following months. The reason for this is because Mallon Oil Company's gas plant, which first came on line in January was undersized. Because of this and other design problems the plant often went down, but of course the wells continued to produce venting the gas until the problem was remedied or the wells shut-in. How much was lost without measurement is unknown to us, but we believe it is substantial. It certainly damages the credibility of January's data.

2. GOR tests are inaccurate. Mallon Oil claims that orifice well testers are not precision instruments, and that rough handling throws off the calibration. Thus these GOR tests should be rejected.

We have learned from the manufacturer that they are precision instruments ( $\pm 2\%$ ), and that any errors will likely result in conservative measurement. (Sec. D-6 pg. 2) [Emphasis in original.]

The language of NTL-4A clearly allows the use of the data used by BLM when calculating the volume of avoidably lost gas. The Area Office memorandum sets out the reasoning behind its selection of the GOR tests conducted by Mallon during the venting periods as being most representative of the actual ratio during the period of venting and a logical basis for rejecting Mallon's contention that the January 1986 testing was more representative. Mallon points to the fact that fewer technical adjustments are necessary if the later tests are used but fails to address the issue of inaccuracies in the January 1986 tests resulting from on-site conditions at the time of the testing. If Mallon's figures were used, upward adjustments would be necessary to take into consideration the unmetered gas lost during the testing period. We have no basis for making those adjustments or determining if or by how much the BLM calculations may be off.

The Department is entitled to rely on the reasoned analysis of its technical experts in matters within the realm of their expertise. See, e.g., Southern Union Exploration Co., 97 IBLA 322 (1987). If BLM supports its decision with sufficient evidence to demonstrate that there is a rational basis for that decision, and that the decision had been made in a careful and systematic manner using the advice of such experts, the decision will not be rejected in the absence of a showing of error. See, e.g., Robert B. Bunn, 102 IBLA 292 (1988). The party challenging the decision has the burden of showing that the determination is erroneous by a preponderance of the evidence. See, e.g., Viking Resources Corp., 97 IBLA 363 (1987). The avoidably lost gas was not measured, and thus the volumetric determination made by BLM's experts in the field is an estimate. BLM has presented a reasoned basis for its estimate, and while Mallon has set forth its reasons why it believes its estimate to be better than BLM's, it has not demonstrated that the adjustments made by BLM were inaccurate or that there was an error in the calculations. We find that the State Office decision was made in a careful and systematic manner using the advice of BLM experts, and is supported by a preponderance of the evidence.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

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R. W. Mullen  
Administrative Judge

I concur:

Wm. Philip Horton  
Chief Administrative Judge

APPENDIX A -- VENTED GAS SUMMARYRibeyowids 2-16, NM-40645, SE/4SE/4 sec. 2, T. 25 N., R. 2 W., N.M.P.M.

<u>1985</u>	<u>Days Prod.</u>	<u>Oil Bbl.*</u>	<u>MCF Gas Vented at 579:1 GOR</u>
March	12	429	(248) 30 day evaluation period
April	19	1659	961
May	2	249	144
June	18	2733	1582
July	27	4470	2588
August	10	1542	893
September	19	3634	2104
October	18	3480	2015
November	19	3078	2014
December 1-20	15	2759	1597
December 23-25	3	340	(197) BLM witnessed GOR test
			14,343 MCF Vented
			13,898 MCF Vented without
			Authorization

Fisher Federal 2-1, NM-40646, NE/4NE/4 sec. 2, T. 25 N., R. 2 W., N.M.P.M.

<u>1985</u>	<u>Days Prod.</u>	<u>Oil Bbl.*</u>	<u>MCF Gas Vented at 679:1 GOR</u>
July	10	3632	(2466) 30 day evaluation period
August	14	4747	(3223) 30 day evaluation period
September	16	5986	4064
October	13	5796	3935
November	17	5591	3796
December 1-20	3	1127	765
December 22-24	3	1012	(687) BLM witnessed GOR test
			18,936 MCF Vented
			12,560 MCF Vented without
			Authorization

Howard 1-8, NMA-113 (50% Federal), SE/4NE/4 sec. 1, T. 25 N., R. 2 W., N.M.P.M.

<u>1985</u>	<u>Days Prod.</u>	<u>Oil Bbl.*</u>	<u>MCF Gas Vented at 1060:1 GOR</u>
July 27-31	5	1856	(1967) 30 day evaluation period
August 1-26	20	8402	(8905) 30 day evaluation period
August 22-31	0	0	0 Shut-in
September	0	0	0 (Exceeded August allowable)
October	10	4260	4516
November	19	9062	(9606) NMOCD Reservoir Study
December	0	0	<u>0</u>
			24,994 MCF Vented
			4,516 MCF Vented without
			Authorization
			2,258 50% Federal interest

\*Oil volumes taken from Forms 3160-6 submitted by Mallon Oil Company.